



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/810,151

03/26/2004

Liang Liu

8373

25859

7590

03/10/2006

WEI TE CHUNG
FOXCONN INTERNATIONAL, INC.
1650 MEMOREX DRIVE
SANTA CLARA, CA 95050

EXAMINER

HINES, ANNE M

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H-9

Office Action Summary

Application No.

10/810,151

Applicant(s)

LIU ET AL.

Examiner

Anne M. Hines

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 9-18 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The Information Disclosure Statement submitted on March 26, 2004 indicates that two sheets have been submitted (see top of page, showing sheet 1 of 2) however only one sheet (sheet 1 of 2) has been received and considered.

Claim Objections

Claim 8 is objected to because of the following informalities: The preamble of claim is in error: "The method as described in claim 8." Claims may not depend from themselves. The claim has been examined on its merits assuming that claim 8 depends from independent claim 1. Appropriate correction is required.

Allowable Subject Matter

Claims 1-7 and 9-18 are allowed.

Regarding independent claims 1 and 11, the references of the Prior Art of record fail to teach or suggest the combination of the limitations as set forth in claims 1 and 11, and specifically comprising the limitation wherein after providing an insulative layer with a first surface, depositing a catalyst on the first surface of the insulative layer, forming a spacer with a plurality of openings so that patterned areas of the catalyst is exposed in the openings, forming carbon nanotubes from the catalyst layer and forming cathode electrodes on top of the carbon nanotubes, gate electrodes are formed on a second opposite surface of the insulative layer offset

Art Unit: 2879

from the patterned catalyst areas and portions of the insulative layer corresponding to the carbon nanotubes are removed.

Regarding claims 2-7, 9-10, and 12-17, claims 2-7, 9-10, and 12-17 are allowable for the reasons given in claims 1 and 11 because of their dependency status from claims 1 and 11.

Regarding independent claim 18, the references of the Prior Art of record fail to teach or suggest the combination of the limitations as set forth in claim 18, and specifically comprising the limitation wherein after providing a catalyst layer, forming a barrier on the catalyst layer, forming carbon nanotubes beside the barrier layer on the catalyst layer and forming a cathode electrode on the carbon nanotubes with the cathode electrode supported by the barrier, the catalyst layer is removed and a gate electrode is provided under the carbon nanotubes.

Conclusion

This application is in condition for allowance except for the following formal matters:

See items in the above office action.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Art Unit: 2879

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anne M Hines
Patent Examiner
Art Unit 2879

Amtt
3/3/06

usage 3/6/06
MARICELI SANTIAGO
PRIMARY EXAMINER